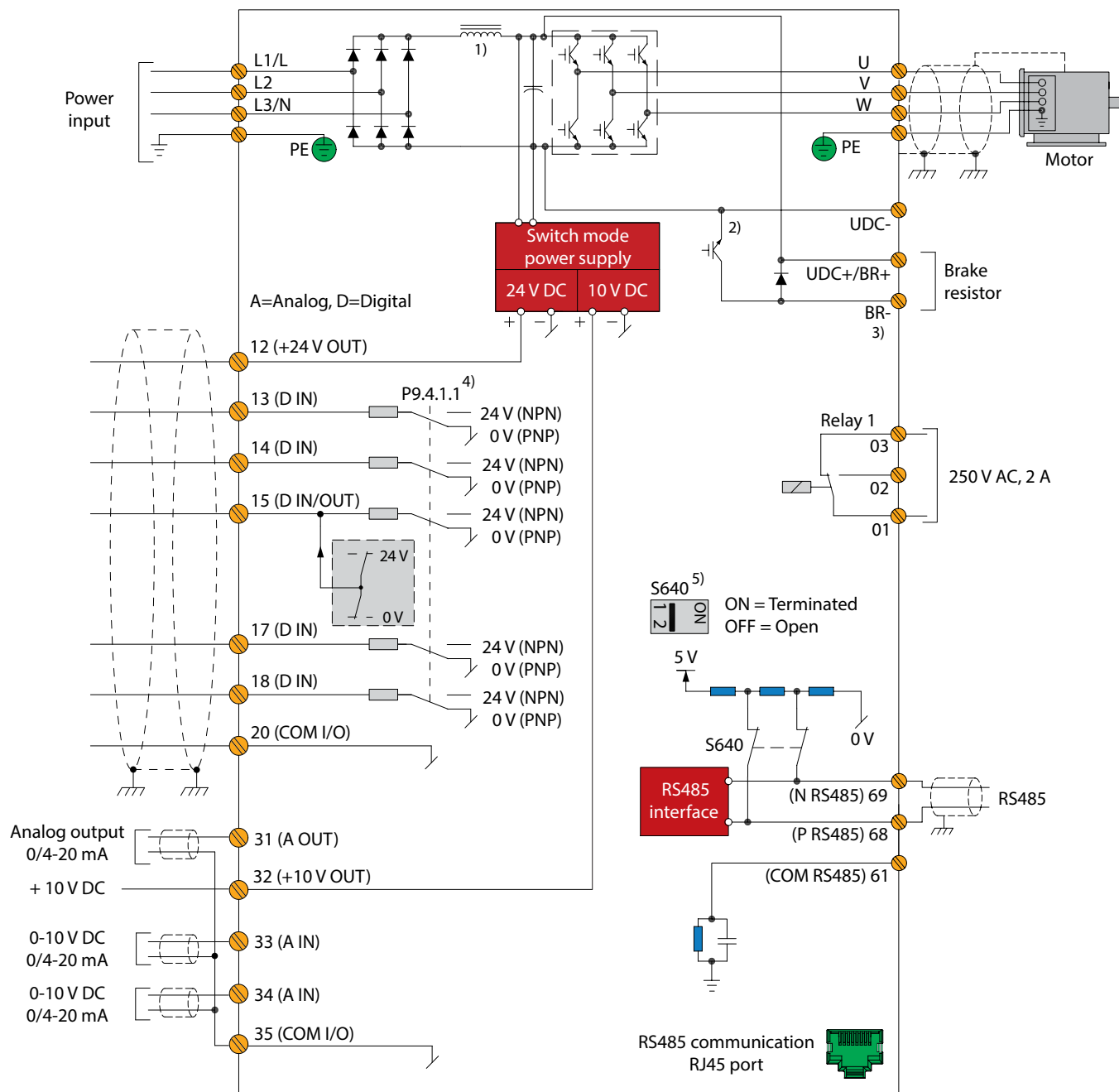




- ¹⁾ Single DC choke in 3 x 380-480 V 18.5 kW (25 hp) and 22 kW (30 hp).
- ²⁾ Built-in brake chopper is only applicable to drives in the power range of 3 x 380-480 V 2.2 kW (3.0 hp) and above.
- ³⁾ No BR terminals for 1 x 200-240 V drives and 3 x 380-480 V 0.37-1.5 kW (0.5-2.0 hp) drives.
- ⁴⁾ Select the PNP or NPN mode via parameter P9.4.1.1 *Digital I/O mode* (PNP=Source, NPN=Sink).
- ⁵⁾ Use switch S640 (bus terminal) to enable termination on the RS485 port (terminals 68 and 69).

Mains supply (L1, L2, L3)	
Supply voltage	100-120 V (-15%/+10%) 200-240 V (-15%/+10%) 380-480 V (-15%/+10%)
Supply frequency	50/60 Hz
Displacement power factor (cos φ)	Near unity (> 0.98)
Switching frequency on input supply L1, L2, L3	Switching maximum 2 times/minute
Output data (U, V, W)	
Output voltage	0 -100% of supply voltage
Switching on output	Unlimited
Ramp times	0.01-3600 s
Frequency range	Induction motor • 0-200 Hz (VVC+ mode) • 0-500 Hz (U/f mode) PM motor • 0-400 Hz(VVC+ mode)
Overload capacity	
Overload torque	150% for 60 s every 10 min
Overload torque at start	200% for 1 s
Programmable digital inputs and outputs	
Digital inputs / digital outputs*	5 / 1
Logic	PNP or NPN
Voltage level	0/24 V DC
*Note: One digital input can be configured as digital output.	
Pulse input and output	
Pulse input / Pulse output**	1 / 1, voltage level 0/24 V DC
**Note: One digital input can be configured as pulse input. Another digital input can be configured as pulse output.	
Programmable analog inputs and output	
Analog inputs	2, voltage or current Voltage level: 0 V to +10 V (scaleable) Current level: 0/4 to 20 mA (scaleable)
Analog output	1 (current range 0/4 to 20 mA)
Programmable relay output	
Programmable relay output	1 (NO/NC 240 VAC, 2 A / 30 VDC, 2 A)



iC2-Micro mains supply 1 x 200-240 V AC ¹⁾

Enclosure IP20/Open Type		MA01c		MA02c	MA02a
		02A2	04A2	06A8	09A6
Typical shaft output	[kW]	0.37	0.75	1.5	2.2
	[hp]	0.5	1.0	2.0	3.0
Output current					
Continuous (3 x 200-240 V AC)	[A]	2.2	4.2	6.8	9.6
Intermittent (3 x 200-240 V AC)	[A]	3.3	6.3	10.2	14.4
Maximum cable size					
Mains, motor	[mm²/AWG]	4/10			
Maximum input current					
Continuous (1 x 200-240 V)	[A]	6.1	11.6	18.7	26.4
Intermittent (1 x 200-240 V)	[A]	8.3	15.6	26.4	37.0
Environment					
Power loss ²⁾	[W]	16	31	46	61
Efficiency ²⁾	[%]	97.5	97.6	97.6	97.9

iC2-Micro mains supply 3 x 380-480 V AC ¹⁾

Enclosure IP20/Open Type		MA01a			MA02a		
		01A2	02A2	03A7	05A3	07A2	09A0
Typical shaft output	[kW]	0.37	0.75	1.5	2.2	3.0	4.0
	[hp]	0.5	1.0	2.0	3.0	4.0	5.5
Output current							
Continuous (3 x 380-440 V)	[A]	1.2	2.2	3.7	5.3	7.2	9.0
Intermittent (3 x 380-440 V)	[A]	1.8	3.3	5.6	8.0	10.8	13.7
Continuous (3 x 440-480 V)	[A]	1.1	2.1	3.4	4.8	6.3	8.2
Intermittent (3 x 440-480 V)	[A]	1.7	3.2	5.1	7.2	9.5	12.3
Maximum cable size							
Mains, motor	[mm²/AWG]	4/10					
Maximum input current							
Continuous (3 x 380-440 V)	[A]	1.9	3.5	5.9	8.5	11.5	14.4
Intermittent (3 x 380-440 V)	[A]	2.6	4.7	8.7	12.6	16.8	20.2
Continuous (3 x 440-480 V)	[A]	1.7	3.0	5.1	7.3	9.9	12.4
Intermittent (3 x 440-480 V)	[A]	2.3	4.0	7.5	10.8	14.4	17.5
Environment							
Power loss ²⁾	[W]	17	25	34	48	58	74
Efficiency ²⁾	[%]	97.3	97.8	98.0	98.3	98.5	98.3

iC2-Micro mains supply 3 x 380-480 V AC ¹⁾

Enclosure IP20/Open Type		MA03a		MA04a	
		12A0	15A5	23A0	31A0
Typical shaft output	[kW]	5.5	7.5	11	15
	[hp]	7.5	10	15	20
Output current					
Continuous (3 x 380-440 V)	[A]	12	15.5	23	31
Intermittent (3 x 380-440 V)	[A]	18	23.5	34.5	46.5
Continuous (3 x 440-480 V)	[A]	11	14	21	27
Intermittent (3 x 440-480 V)	[A]	16.5	21.3	31.5	40.5
Maximum cable size					
Mains, motor	[mm²/AWG]	4/10		16/6	
Maximum input current					
Continuous (3 x 380-440 V)	[A]	19.2	24.8	33	42
Intermittent (3 x 380-440 V)	[A]	27.4	36.3	47.5	60
Continuous (3 x 440-480 V)	[A]	16.6	21.4	29	36
Intermittent (3 x 440-480 V)	[A]	23.6	30.1	41	52
Environment					
Power loss ²⁾	[W]	104	127	213	285
Efficiency ²⁾	[%]	98.3	98.4	98.2	98.3

¹⁾ The value is measured at 100% rated torque-producing current and 90% rated motor stator frequency according to IEC 61800-9-2 and EN 50598-2.

²⁾ Available 2024: 3-phase 380-480 V up to 22 kW; 1-phase 100-120 V; 3-phase 200-240 V

Ordering model code

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
i	C	2	-	3	0	F	A	3	N	0	4	-	0	1	A	2	E	2	0	F	4	+	A	C	X	X
								1	N	0	2									F	2		A	C	B	C
																				F	0					

Product group
iC2-30

Product category
FA Frequency converter air cooled

Product type
3N Three phases
1N Single phase

Mains voltage
04 380-480 V AC
02 200-240 V AC

Protection rating
E20 IP20/Open Type

Brake chopper
+ACXX None
+ACBC Integrated

***Current rating**
01A2 1.2 A
02A2 2.2 A
03A7 3.7 A
04A2 4.2 A
05A3 5.3 A
06A8 6.8 A
07A2 7.2 A
09A0 9.0 A
09A6 9.6 A
12A0 12.0 A
15A5 15.5 A
23A0 23.0 A
31A0 31.0 A

EMC category
F4 C4 category
F2 C2 category
F0 C1 category

Dimensions and weights

Enclosure size	Power [kW (hp)]					
	1 x 200-240 V	3 x 380-480 V	3 x 200-240 V ¹⁾	1 x 100-120 V ¹⁾		
MA01c	0.37-0.75 (0.5-1.0)	–	–	0.37 (0.5)		
MA02c	1.5 (2.0)	–	–	1.1 (1.5)		
MA01a	–	0.37-1.5 (0.5-2.0)	0.37-0.75 (0.5-1.0)	–		
MA02a	2.2 (3.0)	2.2-4.0 (3.0-5.5)	1.5 (2.0)	–		
MA03a	–	5.5-7.5 (7.5-10)	2.2-3.7 (3.0-5.0)	–		
MA04a	–	11-15 (15-20)	–	–		
MA05a	–	18.5-22 (22-30) ¹⁾	–	–		
Enclosure size	Height [mm (in)]		Width [mm (in)]		Depth ²⁾ [mm (in)]	Weight
	A	a	B	b	C	[kg (lb)]
MA01c	150 (5.9)	140.4 (5.5)	70 (2.8)	55 (2.2)	143 (5.6)	1.0 (2.4)
MA02c	176 (6.9)	150.5 (5.9)	75 (3.0)	59 (2.3)	157 (6.2)	1.3 (2.9)
MA01a	150 (5.9)	140.4 (5.5)	70 (2.8)	55 (2.2)	158 (6.2)	1.1 (2.4)
MA02a	186 (7.3)	176.4 (6.9)	75 (3.0)	59 (2.3)	175 (6.9)	1.6 (3.5)
MA03a	238.5 (9.4)	226 (8.9)	90 (3.5)	69 (2.7)	200 (7.9)	3.0 (6.6)
MA04a	292 (11.5)	272.4 (10.7)	125 (4.9)	97 (3.8)	244.5 (9.6)	6.0 (13.2)
MA05a	¹⁾					

¹⁾ Available 2024.
²⁾ The potentiometer on the local control panel extends 6.5 mm (0.26 in) from the drive.